



# THE BEAN BAG

**A newsletter to promote communication among research scientists  
concerned with the systematics of the Leguminosae/Fabaceae**

Number 37

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## From the Editors

Joseph H. Kirkbride, Jr. and John H. Wiersema

The *Bean Bag* (BB) is designed to promote communication among research scientists concerned with legume systematics. To achieve this goal the BB is issued in May and November of each year and features six columns: From the Editors, News (meetings, major events, announcements, etc.), Latin American Legume Report, Nodulation and Nitrogen Fixation (new nodulation records), New Readers, Gleanings, and Recent Legume Literature. Data in the Gleanings column are derived from questionnaire sheets which Readers complete and return. If you have news about legume systematics, send it to us for this column. The Recent Legume Literature column contains published research papers of specific interest to BB Readers. Recent is defined as one year old. We rarely will publish a citation that is more than one year old. Specific interest to BB Readers is defined as research papers of interest to a worldwide group of legume systematic botanists. We encourage BB Readers to send us notices, observations, etc.

Diacritical marks can now be placed in the BB. If such marks should be placed in your name, address, publications, etc., please let us know. We are especially interested in correcting our Directory.

Electronic copies of the BB and the *Directory* can be obtained from TAXACOM or through Internet at HUH.HARVARD.EDU. TAXACOM is a free online service for biosystematics and biogeography at the Buffalo Museum of Science, Buffalo, New York, USA. The system operator is Dr. Richard H. Zander. TAXACOM is available 24 hours daily at telephone number 716-896-7581 using 2400/1200/300 bps, 8 data bits, 1 bit stop, and no parity. Outside of the USA use CCITT at 2400 bps, otherwise use Bell protocols. HUH.HARVARD.EDU is a free service on Internet maintained by Dr. James Beach at the Harvard University Herbaria, Cambridge, Massachusetts, USA. Connect to HUH.HARVARD.EDU via FTP using the name FTP and the password FTP, and copies of the BB and the Directory are in the subdirectory /PUB/NEWSLETTERS/BEANBAG.

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## The Rupert Barneby Award

The New York Botanical Garden is pleased to announce that Mr. David Clarke of the University of Illinois, Urbana, is the recipient of the 1992 *Rupert Barneby Award*. Mr. Clarke will use the award to complete a taxonomic treatment of *Acacia* series *Gummiiferae* of the Caribbean, both as part of his graduate thesis and as a contribution to the *Flora of the Greater Antilles*.

The New York Botanical Garden also invites applications for the 1993 *Rupert Barneby Award*. The award of \$1,000.00 is to assist researchers planning to come to the New York Botanical Garden to study the rich collection of Leguminosae. Anyone interested in applying for the award should submit their curriculum vitae, a letter describing the project for which the award is sought, and how the collection at NYBG will benefit their research. Travel to NYBG should be planned between January 1, 1994 and January 31, 1995. The letter should be addressed to Dr. Enrique Forero, Director, Institute of Systematic Botany, The New York Botanical Garden, Bronx, New York 10458-5126 USA, and received no later than December 3, 1993. Announcement of the recipient will be made by December 17, 1993. Anyone interested in making a contribution to *The Rupert Barneby Fund in Legume Systematics*, which supports this award, may send their check, payable to The New York Botanical Garden, to Dr. Forero.

## International LOTUS Symposium

22-24 March 1994

P.R. Beuselinck

An International Lotus Symposium is being organized to discuss the many facets of *Lotus* research. Arrangements have been made to hold this symposium at the Missouri Botanical Garden in St. Louis, Missouri. Meeting dates are 22-24 March 1994. The *Lotus* Symposium is co-sponsored by the Missouri Botanical Society, the University of Missouri, and the Agricultural Research Service-USDA.

The main objective of the *Lotus* Symposium will be to cover the many aspects of this genus, including breeding, genetics, taxonomy, management, utilization, and physiology, from applied agronomy to genetic manipulation. The secondary objective is to publish the proceedings in a manner so that they can be used as the standard reference for *Lotus*. Plenary speakers are planned, and voluntary papers are encouraged.

Further information can be obtained by contacting P.R. Beuselinck, Plant Genetic Research Unit, University of Missouri, 207 Waters Hall, Columbia, Missouri 65211, USA, or by FAX 314-882-1467 or E-Mail AGROBELL@MIZZOU1.MISSOURI.EDU (Internet).

## Legume Botany in the Former USSR

Yuri Roskov

Botany made significant progress in the former USSR. There are departments of Botany in each University, Pedagogical, and Medical Institute (College). The centers of basic botanical research are institutes associated with Academies of Sciences in almost all of the Republics. Usually they are located in the capital cities. Besides these, applied botany was developed by the Russian Agricultural Academy. Its main center is the Vavilov Institute of Plant Industry (WIR), St.-Petersburg.

The most important centers of botany are: Komarov Botanical Institute, St.-Petersburg; Department of Higher Plants of the Moscow State University, Moscow; The Main Botanical Garden, Moscow; The Central Siberian Botanical Garden, Novosibirsk; Biology & Soil Institute and Far East Botanical Garden, Vladivostok; Ukrainian Institute of Botany, Kiev; Georgian Institute of Botany, Tbilisi; Armenian Institute of Botany, Erevan; and, Azerbajdzhan Institute of Botany, Baku.



## Major Floristic Works Containing Information on Leguminosae

The first complete account of legumes was made in the *Flora URSS* (1945, 1946, 1948), principal editor V.L. Komarov. Moscow, Leningrad. In Russ.:

Vol. 11 ([1941] reprinted 1945), vol. editor B.K. Schischkin: subfams. Mimosoideae and Caesalpinioideae, tribes Amorpheae, Galegeae (in part), Genisteae, Loteae, Lupineae, Sophoreae, Thermopsidae, and Trifolieae;

Vol. 12 (1946), vol. editor B.K. Schischkin: genus *Astragalus*;

Vol. 13 (1948), vol. editors B.K. Schischkin & E.G. Bobrov: genus *Oxytropis*, tribes Cicereae, Coronilleae, Desmodieae, and Hedysareae.

English translation: *Flora of the USSR* Vols. 11 (1971), 12 (1965), 13 (1972). Jerusalem: Israel Program for Scientific Translations.

The *Flora URSS* was prepared by a number of famous Soviet taxonomists, mainly staff members of the Komarov Botanical Institute, and contains original treatments of legume taxa. Work on the *Flora URSS* was accompanied by the publication of monographs for some taxa of Leguminosae. New legume taxa published after the *Flora URSS* were included in *Additamenta et Corrigenda ad "Floram URSS"* by S.K. Czerepanov (1973, Leningrad, p. 240-283, 605-612). A complete list of former-USSR species was presented in *Plantae Vasculares URSS* by Czerepanov (1981, Leningrad, p. 217-249), and in a new edition in press in the USA.

Publication of *Flora URSS* was followed by a number of floristic projects for the USSR Republics. Their authors generally accepted the systems of classification and species delimitations of *Flora URSS* and structured their works as traditional floristic revisions.

*Eesti NSV floora* Vol. 3. (1959) K. Eichwald et al. Tallinn. In Est.

*Latvijas PSR flora* Vol. 3. (1957), editor P. Galenieks. Riga. In Latv.

*Lietuvos TSR Flora* Vol. 4. (1971), editor M.P. Natkevicaite-Ivanauskiene. Vilnius. In Lit.

*Flora BSSR* [Belorussia] Vol. 3. (1954), vol. editor M.P. Tomin. Minsk. In Russ.

*Flora URSS* [Ukraine] Vol. 6. (1954), editor D.K. Zerov. Kiev. In Ukr.

*Opredelitel Vysshikh Rastenij Moldavskoj SSR* [Key to the higher plants of Moldavia], 3rd ed., by T.S. Geideman. 1986. Kishinev. In Russ.

*Flora Georgiae* 2nd ed. Vol. 7. (1981), vol. editors L. Chingizidze, Sch. Kuthatheladze, I. Latschaschvili. Tbilisi. In Georg.

*Flora Abkhazii* 2nd ed. by A.A. Kolakovskiy. 1985. Vol. 3. Tbilisi. In Russ.

*Flora Armenii* Vol. 4. (1962), editor A.L. Takhtajan. Jerevan. In Russ.

*Flora Azerbajdzhana* Vol. 5. (1954), editor I.I. Karjagin. Baku. In Russ.

*Flora Kazakhstana* Vol. 5. (1961), editor N.N. Pavlov. Alma-Ata. In Russ.

*Flora Uzbekistanica* Vol. 3. (1955), editors E. Korovin, A. Vvedensky. Tashkent. In Russ.

*Flora Turkmenii* Vol. 4. (1949), editors B. Fedtschenko, M. Popov, B. Schischkin. Ashkhabad. In Russ.

*Flora Kirgizskoi SSR* Vol. 7. (1957), editors B. Schischkin, A. Vvedensky. Frunze. In Russ.

*Flora Tadzhikskoi SSR* 2nd ed., Vol. 5. (1978), editor P.N. Ovchinnikov. Moscow, Leningrad. In Russ.

*Flora Srednei Sibiri* [Flora of Middle Siberia] by M.G. Popov. 1957. Vol. 1. Moscow, Leningrad. In Russ.

*Flora Sibiriae Centralis* Vol. 2. (1979), editors L. Malyshev, G. Peschkova. Novosibirsk. In Russ.

After the Republic *Floras* a number of major projects for large regions of the former-USSR were undertaken. These monographs contained critical revisions with new systems of classification, detailed synonymies, and large numbers of new taxa.

1. *Flora Partis Europaeae URSS* Vol. 6. (1987), vol. editor N.N. Tzvelev. Leningrad. In Russ. [Russia in Europe, Estonia, Latvia, Lithuania, Belorussia, Ukraine, and Moldavia]. Fabaceae: a team of authors. Species distributions were given in floristic regions.

2. *Flora Kavkaza* by A.A. Grossheim. 1955. Vol. 5. Moscow, Leningrad. In Russ. [Russia in Caucasus, Georgia, Armenia, and Azerbajdzhan]. Species distributions were illustrated by maps.



3. *Conspectus Florae Asiae Mediae* Vol. 6. (1981) R. Kamelin, S. Kovalevskaja, and M. Nabiev. Tashkent. In Russ. [Kazakhstan (except northern parts), Uzbekistan, Turkmenistan, Kirgizstan, and Tadzhikistan]. Leguminosae: a team of authors. Species distributions were given in floristic regions; a great number of toponyms were used without any directory or map.

4. *Flora Sibiriae* (In press, probably 1994), vol. editor A.V. Polozhij. Novosibirsk. In Russ. [Siberian Russia]. Fabaceae: a team of authors. Species distributions will be illustrated by maps.

5. *Plantae Vasculares Orientis Extremi Sovietici* Vol. 4. (1989), editor S.S. Charkevicz. Leningrad. In Russ. [Far Eastern Russia]. Fabaceae: N.S. Pavlova. Species distribution were illustrated by maps.

6. *Flora Arctica URSS* Vol. 9. (1986), editor B.A. Jurtzev. Leningrad. In Russ. [Russian Arctica]. Leguminosae: a team of authors. Species distribution were illustrated by maps.

A review of modern Leguminosae systems of classification were contained in a monograph *Bobovye Zemnogo Shara* [Legumes of the Earth] by G.P. Yakovlev, 1991, Leningrad (In Russ.). Data on chromosome numbers of former-USSR legumes can be found in *Numeri chromosomatum Magnoliophytorum Florae URSS* Vol. 1 (1990), editor A. Takhtajan, Leningrad. Data on human utilization and chemical substances of legumes were published in *Rastitelnye Resursy SSSR. Hydrangeaceae-Holoragaceae*. [Plant resources of the USSR. Vol. 4.] (1987), editor P.D. Sokolov, Leningrad (In Russ.).

## Wanted Faboid Seeds and Fruits: I

Charles R. Gunn

This past year I have completed descriptions of the seeds and fruits of about 175 faboid genera, and concurrently the plates for these genera have been completed. This constitutes the start of the third of three volumes treating legume seed-fruit morphology; volumes 1 and 2 have been published. The genera used in volume 3 are based on the list published in USDA/ARS Tech. Bull. Number 1796. The seeds and fruit of the following genera cannot be included in this study, because I have been unable to locate their seeds and fruits or their published illustrations. Because of excellent cooperation, especially (P), this list is shorter than it was a month ago.

Please loan or send me (U.S. National Seed Herbarium, Room 304, Bldg. 011A, BARC-WEST, Beltsville, Maryland 20705-2350, USA) seeds and fruits or seed-fruit illustration citations of these genera:

### Tribe: CROTALARIEAE

*Sellocharis paradoxa*. S.E. Brazil. 1 sp.

### Tribe: DESMODIEAE

*Desmodium belgaumense* (parviflorus) & *racemosum* (rotundifolius). 2 spp. India, Indochina, Indonesia.

*Neocollettia wallichii* (Kurz) Schindler (*Teramnus w.* & *N. gracilis*). 1 sp. Burma & Java.

*Nephrodesmus sericeus*, *N. macrobotryosus*, *N. parvifolius*, etc. 6 spp. New Caledonia.

### Tribe: GALEGEAE

*Spongiocarpella grubovii*, *intermedia*, *nubigena*, *paucifoliolata*, *polystichoides*, *potaninii*, *purpurea*, *spinosa*, *yunnanensis*. (*Astragalus nub.*; *Chesneya nub.* & *C. poly.*; *Oxytropis grub.*) 9 spp. Russia & Nepal.

### Tribe: HEDYSAREAE

*Sartoria hedysaroides* Boiss. & Heldg. 1 sp. S. Turkey. [Seeds and fruits unknown to science.]

### Tribe: LIPARIEAE

*Xiphotheca* A 1993 segregate genus of *Priestleya*. South Africa.

### Tribe: LOTEAE

*Tripodion* Recent segregate genus of *Anthyllis*.

### Tribe: MILLETTIEAE

*Burkilliodendron album* (*Alloburkillia* & *Burkillia a.*). 1 sp. Malaysia (Perak).

*Imbralyx albiflora* (Prain) Geesink (*Millettia a.*) & (*Millettia* Sect. *Albiflorae*). 4 spp. South

China, Malaysia, Sumatra.

*Margaritolobium luteum*. 1 sp. Venezuela [Margarita Island].

*Muelleria moniliformis* (*Lonchocarpus* Sect. *Punctati*). 2-4 spp. Tropical America.

*Neodunnia atrocyanea*, *N. aurea*, *N. longiracemosa*. 5 spp. Madagascar.

*Ostryocarpus* 2-4 spp. Tropical Africa to SE Asia & Indochina.

*Padbruggea filipes* (*Afgekia* f., *Adinobotrys* f.). ca. 10 spp. SE Asia.

*Paraderris cuneifolia* (*Derris* c. & *malaccensis*). India to New Guinea (but not Australia & Pacific).

*Paratephrosia lanata* (Benth.) Domin (*Tephrosia* l.) 1 sp. Central Australia.

*Pongamiopsis amygdalina* (*Millettia* a.) & *P. pervilleana* (*Diphaca* p.). 2 spp. Madagascar.

*Xeroderris chevalieri* (*Ostryocarpus* c.) & (*X. stuhlmanii*). 1 or 2 spp. Tropical Africa.

Tribe: MIRBELIEAE

*Jansonia formosa* Kippist. 1 spp. Western Australia.

*Leptosema aculeatum*, *anomalum*, *bossiaeoides*, *chambersii*, *daviesioides*, *uniflorum* (a segregate genus of *Brachysema*). 6 spp. Western and Northern Territory, Australia.

Tribe: PHASEOLEAE: Cajaninae

*Carrissoa angolensis* 1 sp. Angola. [Little known genus, probably based on a species of *Eriosema*, whose seeds and fruit are apparently unknown to science].

Tribe: PHASEOLEAE: Clitoriinae

*Clitoriopsis mollis*. 1 sp. Sudan & Zaire.

Tribe: PHASEOLEAE: Diocleinae

*Cleobulia leiantha* & *C. diocleoides*. 2 spp. Brazil.

*Luzonia purpurea* Elmer. 1 sp. Philippines [Luzon]. Type description notes that fruit unknown.

Tribe: PHASEOLEAE: Erythrinae

*Cochlianthus gracilis*, *montanus* (*Mucuna* m.). 2 spp. Himalayas. [Possibly congeneric with *Apios*].

*Meizotropis minor*, *pellita* 2 spp. India, SE Asia. Burma.

Tribe: PSORALEAE

*Hallia alata*, *asarina*, *cordata*, *flaccida*, *imbricata*, *virgata*. 6 spp. South Africa.

Tribe: SOPHOREAE

*Luetzelburgia* 6 spp. Brazil.

## Yucatanensis Etnoflora

José Salvador Flores Guido

*Yucatanensis Etnoflora* is published by the Faculty of Veterinary Medicine and Animal Science of the Autonomous University of Yucatan. It appears periodically as separate fascicles of which numbers one through seven have been published to date. The main objective of this publication is to expand our knowledge of the taxonomy, floristics, ecology, use, and management of plants by the inhabitants of the Mayan communities on the Yucatan Peninsula. It was started at the National Institute and then transferred to the Autonomous University of Yucatan in 1988. For further information, please contact FLORES GUIDO (New Reader).

### Fascicles

1. Yucatanensis Etnoflora: Floristic List and Mayan Synonymy.
2. Yucatanensis Etnoflora: Forest Use and Management at the Mayan Community of Xul in the Southern Yucatan.
3. Yucatanensis Etnoflora: Vegetation types of the Yucatan Peninsula.
4. Yucatanensis Etnoflora: Vegetation of the Yucatan Peninsula Islands: Floristics, Ecology, and Ethnobotany.
5. Yucatanensis Etnoflora: Glossary of Mayan Agricultural Terms.
6. Yucatanensis Etnoflora: Gymnospermae of the Yucatan Peninsula: Taxonomy, Floristics, and



## Ethnobotany.

## 7. Yucatanensis Etnoflora: Psilotaceae of the Yucatan Peninsula.

## Nodulation and Nitrogen Fixation

Legume Nodulation Reports not in Allen and Allen (1981)

Taxon	Status <sup>1</sup>	Nodule <sup>2</sup> Shape	Source <sup>3</sup>
<i>Abarema adenophora</i> (Ducke) Barneby & Grimes	+		1
<i>Acacia multipinnata</i> Ducke	-		1
<i>Acacia paniculata</i> Willd. (= <i>A. tenuifolia</i> (L.) Willd. <sup>4</sup> )	-		1
<i>Acacia polyphylla</i> DC.	+		1
<i>Acosmium nitens</i> (Vogel) Yakovlev	-		1
<i>Albizia corymbosa</i> (L.C. Rich.) G.P. Lewis & P.E. Owen	+		1
<i>Albizia polyantha</i> (Sprengel) G.P. Lewis	+		1
<i>Albizia saman</i> (Jacq.) F. von Mueller	+		1
<i>Aldina latifolia</i> Spruce ex Benth.	-		1
<i>Aldina heterophylla</i> Spruce ex Benth.	-		1
<i>Amburana acreana</i> (Ducke) A.C. Smith	-		1
<i>Andira micrantha</i> Ducke	+ & -		1
<i>Andira parviflora</i> Ducke	-		1
<i>Andira unifoliolata</i> Ducke	-		1
<i>Apuleia molaris</i> Spruce ex Benth.	-		1
<i>Bauhinia acreana</i> Harms	-		1
<i>Bauhinia longicuspis</i> Benth.	-		1
<i>Bocoa viridiflora</i> (Ducke) Cowan	-		1
<i>Caesalpinia ferrea</i> Mart. ex Tul.	-		1
<i>Calliandra tenuiflora</i> Benth.	+ & -		1
<i>Campsiandra comosa</i> Benth. var. <i>laurifolia</i> (Benth.) Cowan	+		1
<i>Cassia fastuosa</i> Willd. ex Benth.	-		1
<i>Cassia leiandra</i> Benth.	-		1
<i>Cedrelina cateniformis</i> Ducke	+		1
<i>Chamaecrista negrensis</i> (Irwin) Irwin & Barneby	+ & -		1
<i>Chamaecrista nictitans</i> (L.) Moench. subsp. <i>disadana</i> (Steud.) Irwin & Barneby	+		1
<i>Clathrotropis nitida</i> (Benth.) Harms	+		1
<i>Clitoria amazonum</i> Mart. ex Benth.	+		1
<i>Clitoria fairchildiana</i> Howard	+		1
<i>Clitoria javitensis</i> (Kunth) Benth.	+		1
<i>Clitoria pinnata</i> (Pers.) R.H. Smith & G.P. Lewis	-		1
<i>Copaifera multijuga</i> Hayne	-		1
<i>Copaifera reticulata</i> Ducke	-		1
<i>Crudia amazonica</i> Spruce ex Benth.	-		1
<i>Crudia pubescens</i> Spruce ex Benth.	-		1
<i>Cynometra bauhiniifolia</i> Benth.	-		1
<i>Dalbergia inundata</i> Benth.	+		1
<i>Dalbergia riedelii</i> (Radlk.) Sandw.	+		1
<i>Dalbergia riparia</i> (Mart.) Benth.	+		1
<i>Derris amazonica</i> Killip	+ & -		1
<i>Derris longifolia</i> Benth.	-		1
<i>Derris negrensis</i> Benth.	+		1
<i>Dialium guianense</i> (Aubl.) Sandw.	-		1

<i>Dicorynia paraensis</i> Benth.	+	1
<i>Dimorphandra caudata</i> Ducke	-	1
<i>Dimorphandra parviflora</i> Spruce ex Benth.	+ & -	1
<i>Dinizia excelsa</i> Ducke	-	1
<i>Dioclea macrocarpa</i> Huber	+	1
<i>Dioclea malacocarpa</i> Ducke	+	1
<i>Diploctropis purpurea</i> (Rich.) Amsh.	+	1
<i>Dipteryx magnifica</i> Ducke	-	1
<i>Dipteryx punctata</i> (Blake) Amsh.	-	1
<i>Elizabetha bicolor</i> Ducke	-	1
<i>Entada polyphylla</i> Benth.	+	1
<i>Enterolobium schomburgkii</i> Benth.	+	1
<i>Etaballia dubia</i> Rudd	+	1
<i>Heterostemon mimosoidea</i> Desf.	-	1
<i>Hymenaea parvifolia</i> Huber	-	1
<i>Hymenolobium heterocarpum</i> Ducke	+	1
<i>Hymenolobium modestum</i> Ducke	+ & -	1
<i>Hymenolobium petraeum</i> Ducke	-	1
<i>Hymenolobium sericeum</i> Ducke	-	1
<i>Inga acreana</i> Harms	+	1
<i>Inga calantha</i> Ducke	+	1
<i>Inga capitata</i> Desv.	+	1
<i>Inga cinnamomea</i> Spruce ex Benth.	+	1
<i>Inga disticha</i> Benth.	+	1
<i>Inga lateriflora</i> Miq.	+	1
<i>Inga macrophylla</i> Willd.	+ & -	1
<i>Inga meisneriana</i> Miq.	+	1
<i>Inga nobilis</i> Willd.	+	1
<i>Inga panurensis</i> Spruce ex Benth.	-	1
<i>Inga rubiginosa</i> (Rich.) DC.	+	1
<i>Inga speciosa</i> Spruce ex Benth.	-	1
<i>Inga thibaudiana</i> DC.	-	1
<i>Inga uraguensis</i> Hook. & Arn.	+	1
<i>Lecointea amazonica</i> Ducke	-	1
<i>Machaerium hoehneanum</i> Ducke	-	1
<i>Machaerium ferox</i> (Mart. ex Benth.) Ducke	+	1
<i>Machaerium froesii</i> Rudd	+	1
<i>Machaerium inundatum</i> (Mart. ex Benth.) Ducke	+	1
<i>Machaerium madeirense</i> Pittier	+	1
<i>Machaerium quinata</i> (Aubl.) Sandw.	+	1
<i>Macrolobium acaciifolium</i> Benth.	-	1
<i>Macrolobium angustifolium</i> (Benth.) Cowan	-	1
<i>Macrolobium gracile</i> Spruce ex Benth.	-	1
<i>Macrolobium limbatum</i> Spruce ex Benth.	-	1
<i>Macrolobium microcalyx</i> Ducke	-	1
<i>Marmaroxylon racemosum</i> (Ducke) Killip (= <i>Pithecellobium racemosum</i> Ducke <sup>4</sup> )	-	1
<i>Mimosa spruceana</i> Benth.	-	1
<i>Monopteryx inpa</i> W. Rodr.	-	1
<i>Mora paraensis</i> Ducke	-	1
<i>Ormosia discolor</i> Spruce ex Benth.	+ & -	1
<i>Ormosia excelsa</i> Nemth.	+	1
<i>Ormosia macrocalyx</i> Ducke	+	1
<i>Ormosia paraensis</i> Ducke	-	1
<i>Ormosia smithii</i> Rudd	-	1



<i>Parkia decussata</i> Ducke	-	1
<i>Parkia discolor</i> Benth.	-	1
<i>Parkia multijuga</i> Benth.	-	1
<i>Parkia oppositifolia</i> Benth. (= <i>P. nitida</i> Miq. <sup>4</sup> )	-	1
<i>Parkia pectinata</i> (Kunth) Benth.	-	1
<i>Parkia ulei</i> (Harms) Kuhl.	-	1
<i>Peltogyne catingae</i> Ducke subsp. <i>glabra</i> (W. Rodr.) M.F. da Silva	-	1
<i>Peltogyne excelsa</i> Ducke	-	1
<i>Peltogyne paniculata</i> Benth.	-	1
<i>Peltogyne prancei</i> M.F. da Silva	-	1
<i>Pithecellobium adiantifolium</i> Benth.	+	1
<i>Pithecellobium arenarium</i> Ducke	+	1
<i>Pithecellobium auriculatum</i> Benth.	-	1
<i>Pithecellobium claviflorum</i> Benth.	-	1
<i>Pithecellobium duckei</i> Huber	-	1
<i>Pithecellobium lindesifolium</i> Spruce ex Benth.	+	1
<i>Pithecellobium pedicellare</i> (DC.) Benth.	+	1
<i>Pithecellobium sanguineum</i> Benth.	+	1
<i>Platymiscium duckei</i> Huber (= <i>P. trinitatis</i> Benth. <sup>4</sup> )	+ & -	1
<i>Pterocarpus amazonicus</i> Huber (= <i>P. santalinoides</i> DC. <sup>4</sup> )	-	1
<i>Schizolobium amazonicum</i> Hub. ex Ducke	-	1
<i>Sclerolobium chrysophyllum</i> Poepp. & Endl.	-	1
<i>Sclerolobium hypoleucum</i> Benth.	+	1
<i>Sclerolobium melanocarpum</i> Ducke	-	1
<i>Sclerolobium odoratissimum</i> Spruce ex Benth.	-	1
<i>Senna quinquangulata</i> (Rich.) Irwin & Barneby	-	1
<i>Senna silvestris</i> (Vel.) Irwin & Barneby	-	1
<i>Stryphnodendron guianense</i> (Aubl.) Benth.	+ & -	1
<i>Stryphnodendron microstachyum</i> Poepp. & Endl.	-	1
<i>Stryphnodendron pulcherrimum</i> (Willd.) Hochr.	+	1
<i>Swartzia auriculata</i> (Poepp.) Endl.	+	1
<i>Swartzia bannia</i> Sandw.	+	1
<i>Swartzia cuspidata</i> Benth.	-	1
<i>Swartzia ingifolia</i> Ducke	-	1
<i>Swartzia laevicarpa</i> Amsh.	+ & -	1
<i>Swartzia panacoco</i> (Aubl.) Cowan	-	1
<i>Swartzia polyphylla</i> DC.	+	1
<i>Swartzia reticulata</i> Ducke	-	1
<i>Swartzia schomburgkii</i> Benth.	+	1
<i>Swartzia sericea</i> Vogel	-	1
<i>Swartzia ulei</i> Harms	-	1
<i>Tachigali paniculata</i> Aubl. var. <i>paniculata</i>	+	1
<i>Taralea oppositifolia</i> Aubl.	-	1
<i>Vatairea guianensis</i> Aubl.	-	1
<i>Vouacapoua pallidior</i> Ducke	+	1
<i>Zygia cauliflora</i> (Willd.) Killip	+	1
<i>Zygia glomerata</i> (DC.) Pittier (= <i>Pithecellobium glomerata</i> (DC.) Benth. <sup>4</sup> )	+	1
<i>Zygia inaequalis</i> (Humb. & Bonpl.) Pittier	+	1

<sup>1</sup>Status: +, root nodules reported as present; -, root nodules reported as absent; ±, the nodulation report conflicts with Allen and Allen (1981).

<sup>2</sup>Nodule shape: Ae, aescynomoid; As, astragaloid (now referred to as caesalpinoid by Corby); Cr, crotalaroid; CrB, branched crotalaroid; CrS, simple crotalaroid; De, desmodioid; Gl, globose; Lu, lupinoid; Mu, mucunoid.



<sup>3</sup>Source:

1. Moreira, F.M. de S., FREITAS DA SILVA, and DE FARIA. 1992. Occurrence of nodulation in legume species in the Amazon region of Brazil. *New Phytologist* 121: 563-570.

<sup>4</sup> Name accepted in ILDIS database.

## Gleanings

ALBUQUERQUE's Ph.D. dissertation on identification and germination of Amazonian seeds, including many legumes, is now in press. He is now studying the identification and germination of weed seeds, again including many legumes, and is continuing to work with medicinal plants. He needs information about medicinal plants, and offers information about Amazonian Leguminosae.

ARAMBARRI is finishing a survey by SEM of testa topography in genus *Lotus*, subgenera *Acmispon*, *Edentolotus*, *Hosackia*, *Pedrosia*, and *Syrmatium*, and working on the comparative morphology of the lens of permeable and impermeable *L. tenuis*. She needs seed samples of *L. angustissimus*, *L. palustris*, *Prosopis nigra*, and *Spartium junceum*.

ARONSON is working on nitrogen fixation in and biogeography of *Acacia tortilis* subsp. *raddiana* north and south of the Sahara. He needs vouchered seed samples and rhizobial inoculants for *A. tortilis* and any other N<sub>2</sub>-fixing legumes from North Africa or the Sahel and offers similar materials from his research collection.

ASKEROV (New Reader) is working on the infraspecific systematics, taxonomy, distribution, and ecology of *Astragalus* in Azerbaidzhan and is preparing a checklist of Azerbaidzhan Leguminosae. She needs new publications on *Astragalus* and data on the types of *Astragalus* species and offers reprints of Fabaceae publications and herbarium specimens of Azerbaidzhan legumes.

BELYAEV (New Reader) is studying the infraspecific changeability and population structure of *Trifolium pratense* in the Ural Range. He needs herbarium specimens and seeds of *T. pratense* from different parts of its range and preprints on changeability, infraspecific systematics, geography, and morphogenesis. He offers herbarium specimens of *T. pratense* and other clover species from the Ural and Cisural Regions and seeds of *T. pratense* from native populations.

BANDYOPADHYAY (New Reader) is working on Indian *Bauhinia*.

BIANCO (New Reader) is working on the systematics of Caesalpinioideae of Córdoba, Argentina.

BOCHKIN (New Reader) is preparing a treatment of Fabaceae, excluding *Astragalus*, for the "Flora of Lower Volga." He needs legume taxonomic literature and herbarium specimens on exchange and offers herbarium specimens from Caucasus, Lower Volga Region, and Middle Asia, especially of the genus *Astragalus*.

BRIMER is working on the spreading potential of exotic *Acacia* species in Europe.

CHAPPILL is preparing a revision of *Jacksonia*, tribe Mirbelieae.

DEGALDO SALINAS, see SOUSA-PENA.

DILCHER is studying legumes in amber and needs fossil legumes.

FLORES GUIDO (New Reader) is working on the legumes as multiuse, renewable resources in the Mesoamerican tropics. He needs references on the taxonomy, floristics, and ethnobotany of legumes and offers reprints of his publications.

FORERO is now working on the *Calliandra* of Columbia.

GABAY (New Reader) is studying the systematics of *Lathyrus* species related to *L. sativus*, needs seeds of *L. amphicarpos*, *L. blepharicarpos*, *L. ciliolatus*, and *L. stenophyllus*, and offers seeds of *Lathyrus* section *Cicerula*, especially *L. sativus*.

GALETTO is studying nectar and nectaries, both floral and extrafloral, in *Acacia* in relation to plant biology.

GRAVES needs rhizobium of *Hedysarum spinosissimum*, *Medicago hypogea*, and *Vicia amphicarpa* (= *Vicia sativa* subsp. *amphicarpa*) and offers *Hedysarum*, California-naturalized *Medicago polymorpha*, *Trifolium hirtum*, and other annual species of *Trifolium* and *Medicago*.

HANELT, together with Dr. D. Mbewe of Zambia, is studying the storage protein types among a collection of *Phaseolus vulgaris* accessions from Georgia, Transcaucasus.

JAASKA is studying the biodiversity and phylogenetic systematics of the Triticeae and Phaseolinae using electrophoretic isoenzyme characters. He needs wild accessions of *Phaseolus* and *Vigna* and offers in exchange reprints of his publications.

JURZYATA is working on the chemotaxonomy and saponins of *Medicago*.

KAPULER (New Reader) is working on a phylogenetic garden layout (kinship/coevolutionary), formats for representing legume diversity in educational and conservatory gardens, and needs seeds representing all legume tribes and subtribes, primary genera. He offers access to his seed collection of Peace Seeds, A Planetary Gene-Pool Resource and Service, and his resources as Research Director of Seeds of Exchange, a national organic seed company.

KITE is doing chemotaxonomic studies of *Andira*, *Caesalpinia*, and *Inga*, needs bulk seed collections of these genera, and offers academic collaboration.

KRAMINA (New Reader) is working on the taxonomy of Russian *Lotus* and the variability and taxonomic structure of the *Lotus corniculatus* complex and needs seeds of native members of the *L. corniculatus* complex.

KRAUS (New Reader) is studying the inflorescence morphology of Caesalpinioideae and needs inflorescences of tribe Caesalpinieae.

LOCK has begun preparation, with Helen Ireland, of a legume checklist for the Indian Ocean Islands, including Madagascar, for ILDIS.

LUCKOW is studying the generic relationships in the Mimoseae using morphological and molecular data, needs seeds of *Dichrostachys*, *Entada*, *Gagnebina*, *Mimozyganthus*, and *Xylia*, and offers seeds of various mimosoids, especially *Desmanthus*.

MAGULAEV (New Reader) is carrying out chromosome analyses of North Caucasian legumes. He needs information on the caryotaxonomy of legumes and seeds of the genera *Astragalus*, *Lathyrus*, *Medicago*, *Onobrychis*, *Trifolium*, and *Vicia* from other regions of the world and offers separates of his publications and herbarium specimens of investigated species.

MENONÇA is doing a comparative study of *Machaerium* section *Oblonga*, needs seeds of same, and offers specimens from the State of Minas Gerais, Brazil.

MOISEEV (New Reader) is preparing a thesis entitled "Systematics of section *Lupinaster* (Genus



*Trifolium*)" and has in press two articles, "Finds of *Trifolium spryginii* in Murmansk Regio" and "Analysis of morphological variety in *Trifolium lupinaster*, s.l., group." He needs seeds and herbarium specimens of *Trifolium* section *Lupinaster* and publications on legumes and offers herbarium specimens and seeds of Southern Ural legumes (Chelyabinsk Region).

MONTEIRO's graduate student, Flávia Garcia, has successfully defended her Master's thesis, a floristics survey of the legumes of a coastal forest in the northern area of the Atlantic Forest State Park of São Paulo, Brazil, listing 51 species of trees, shrubs; and herbs with diagnoses, illustrations, comments, phenology, and distribution. He is now supervising her Ph.D. project covering the taxonomic limits, breeding biology, and morphometry of the southeastern Brazilian forest species of *Inga*. T. Pennington, Royal Botanic Gardens, Kew, Great Britain, is a co-supervisor and will be providing funds for part of her research.

Poul Erik NIELSEN (New Reader) is working on hybridization of and field trials with *Pachyrhizus* in Tonga.

NIKOLAESKAYA (New Reader) is studying leaf anatomy of North Caucasus legume species, needs herbarium specimens and fixed foliar material of mountain legumes, and offers herbarium specimens and fixed foliar material of North Caucasian legumes.

NIYOMDHAM, according to VIDAL, is preparing the Dalbergieae for the *Flore du Cambodge-Laos-Vietnam*.

NOVIKOVA (New Reader) is working on the taxonomy of root nodule bacteria of temperate legumes and needs information and publications on legumes and rhizobia. She offers information on cross-nodulation and practical uses of new temperate legumes and rhizobia strains.

O'BRIEN (New Reader) has projects underway on the ecology and population biology of South Florida *Galactia* species and the population genetics of *Amorpha crenulata*. He needs taxonomic reprints on *Galactia* and offers materials from South Florida.

ORTIZ (New Reader) is working on the isoenzymatic and morphological characterization of *Arachis pintoii* and *Stylosanthes capitata*. She needs references on seed deterioration, conservation, and dormancy, and offers in exchange a wide range of tropical forage seeds in research quantities.

OSMAN is involved in agronomic studies of *Sesbania*, needs seeds of same, and offers seeds of various legume species.

Phan Ke Loc (HNU), according to VIDAL, is preparing the Millettieae for the *Flore du Cambodge-Laos-Vietnam*.

PLENNIK (New Reader) is working on the morphology, anatomy, and introduction of Siberian legumes, especially the genera *Astragalus*, *Hedysarum*, *Lathyrus*, *Lotus*, *Medicago*, *Melissitus* (= *Trigonella*), *Onobrychis*, *Oxytropis*, *Trifolium*, and *Vicia*. She wants seeds of native English and North American species of *Astragalus*, *Hedysarum*, and *Trifolium* and offers seeds, data on phenology, and publications on anatomy, morphology, chromosome numbers, and introduction of Siberian legumes.

POTOKINA (New Reader) is working on the taxonomy and geography of the genus *Vicia* and the polymorphism of native populations of *Vicia*. She needs herbarium material and seeds of Mediterranean *Vicia* species and offers seeds of *Cicer*, *Lathyrus*, and *Vicia* from Middle Asia.

ROSENTHAL needs seeds of *Lonchocarpus*, specifically *L. sericeus*, and is looking for a collaborator for further collecting of *Lonchocarpus*.

ROSKOV, SYTIN, and YAKOVLEV are continuing work on the database "Legumes of East Europe and North and Central Asia" for ILDIS, including Armenia, Azerbaijan, Belorussia, Estonia, Georgia, Kazakhstan, Kirgizstan, Latvia, Lithuania, Moldavia, Mongolia, Russia, Tadzhikistan, Turkmenistan, Ukraine, and Uzbekistan.

SCHNABEL (New Reader) is a postdoctoral fellow working on the cladistic biogeography of the genera *Gleditsia* and *Gymnocladus*, needs seeds from Asian members of these two genera, and offers seeds from North American members of these genera.

SCHULTZE-KRAFT is making chromosome counts of and studying species relationships in *Centrosema*, and needs viable seeds of *C. bracteosum*, *C. dasyanthum*, *C. heptaphyllum*, *C. jaraguaense*, and *C. tapirapoanense*.

SEFEROVA (New Reader) is studying the systematics of the genus *Cicer*, especially from Middle Asia and Caucasus, and of the infraspecific classification of cultivated *Cicer* and needs seeds of native *Cicer* species.

SEIGLER is working on the systematics of New World *Acacia* series *Vulgares*.

SHARIPOVA (New Reader) is preparing a key for Tadzhikistan legumes, needs publications, and offers the *Flora Tadzhikskoi SSR*, volumes 5 (Leguminosae), 6, 7, 9, and 10.

SOUSA-PENA (New Reader), with DEGALDO SALINAS and A. Wong, has submitted a manuscript entitled "Pollination dynamics and evolution in the *Phaseolus coccineus* L. complex" for the Proceedings of the Third International Legume Conference and is continuing his work on the pollination of the *P. coccineus* complex.

SYTIN, see ROSKOV.

TEPLYAKOVA (New Reader) is studying the infraspecific systematics of *Glycine max*, including cultivars.

VANDEBORGHT offers seed material of 150 taxa of Phaseoleae, mainly wild *Phaseolus* and *Vigna*, with detailed passport data and needs seeds of Phaseoleae.

VILELA (New Reader) is working on *Prosopis* leaf anatomy.

A. Wong, see SOUSA-PENA.

WHITE needs information about worldwide collections of leguminous crops and their wild relatives and offers a wide range of species.

YAKOVLEV, see ROSKOV.

## RECENT LEGUME LITERATURE

Eds. Note: Author names in all capital letters are BB Readers. Their full names and addresses are listed in November 1992 BB Directory and supplements. Correspondence about their articles should be sent directly to them.

Abd el Nabi, O.M., E.C. Reisinger, F.F. Reinthaler, F. Still, U. Eibel, and G.J. Krejs. 1992. Antimicrobial activity of *Acacia nilotica* var. *nilotica* (Mimosaceae). J. Ethnopharmacol. 37(1): 77-79.

ARAMBARRI. 1991. Description and illustration of seeds and seedlings of *Lotus angustissimus* L., L.



- palustris* Willd., and *L. suaveolens* Pers. (Fabaceae-Faboideae). Lotus Newsletter 22: 8-11.
- ARONSON. 1992. Evolutionary biology of *Acacia caven* (Leguminosae, Mimosoideae): Intraspecific variation in fruit and seed characters. Ann. Missouri Bot. Gard. 79: 958-968.
- ASKEROV. 1991. Taksonomicheski obzor roda *Astragalus* (Fabaceae) Azerbaidzana [Taxonomic review of the genus *Astragalus* (Fabaceae) in Azerbaidzhan]. Bot. Zhurn. 76(11): 1607-1612.
- Azevedo-Tozzi, A.M.G. de. 1992. *Lonchocarpus monilis* (L.) Az.-Tozzi, *comb. nov.* (Leguminosae-Papilionoideae): considerações nomenclaturais e taxonômicas. Revista Brasil. Bot. 15(2): 151-155.
- BANDYOPADHYAY. 1992. Notes on the distribution of *Bauhinia khasiana* Baker (Leguminosae: Caesalpinioideae). Bull. Bot. Surv. India 32(1-4): 175-176.
- BANKS. 1992. Broadening plant genetic resources by foreign exploration: a case history for peanuts. Proc. Soc. Commercial Seed Technologists (69th Annual Conference) 99-100.
- Barreda, V.D. and CACCAVARI. 1992. Mimosoideae (Leguminosae) occurrences in the early miocene of Patagonia, Argentina. Palaeogeogr. Palaeoclimatol. Palaeoecol. 94(1-4): 243-252.
- Beckett, K.A. and POLHILL. 1991. *Parochetus africanus*. Kew Magazine 8(2): 54-58.
- BELYAEV. 1992. Ob izmenchivosti klevera lugovogo v obraztzh iz prirodnyh i sortovyh populyatsii na Urale [On changeability of *Trifolium pratense* from native and culture Ural populations]. Tez. Dokl. IV Molodezhn. Konf. Bot. St. Petersburg 26.
- BIANCO and J.J. Cantero. (Date unknown). Leguminosae in Las Plantas Vasculares del suroeste de la Pcia. de Córdoba (Argentina). Iconografía 130-151. Ed. AMMER. Río Cuarto, Córdoba, Argentina.
- BIANCO and KRAUS. 1991. Morfología de la flor e inflorescencia en *Desmanthus depressus* (Leguminosae). Revista Univ. Nac. Río Cuarto 11(1): 5-14.
- BISBY, ROSKOV, SYTIN, and YAKOVLEV. 1992. The International Programme on Legume Database and Information Service. Bot. Zhurn. 77(6): 43-48.
- Cardenas, L. 1992. *Albizia falcataria* (L.) Fosb. (Leguminosae-Mimosoideae) recorded in Venezuela as cultivated. Ernstia 1(4): 139-141. In Spanish.
- Chapman, A.R. and MASLIN. 1992. *Acacia* miscellany. 5. A review of the *A. bivenosa* group (Leguminosae: Mimosoideae: sect. Phyllodineae). Nuytsia 8(2): 249-283. 13 taxa in group.
- Cocucci, A.A., GALETTO, and A. Sérsic. 1992. El síndrome floral de *Caesalpinia gilliesii* (Fabaceae-Caesalpinioideae). Darwiniana 31: 111-135.
- Collins, J.L. and T.F. Wieboldt. 1992. *Trifolium calcaricum* (Fabaceae): A new clover from limestone barrens of eastern United States. Castanea 57(4): 282-286.
- Conti, F. 1991. Italian floristic reports. 606. *Astragalus australis* (L.) Lam. (Leguminosae) syn. *Phaca australis* Lam. New distribution data for the Central Apennines. Inf. Bot. Ital. 22(1-2): 65-66. In Italian.
- Conti, F. 1991. Italian floristic reports. 605. *Calicotome villosa* (Poiret) Link (Leguminosae), new species for Abruzzo. Northern location along the Adriatic Versant in the Italian Peninsula. Inf. Bot.

Ital. 22(1-2):65. In Italian.

Costa, N.M.de S. and SCHULTZE-KRAFT. 1990. Biogeography of *Stylosanthes capitata* Vog. and *S. guianensis* Sw. var. *pauciflora*. Pesquisa Agropecuaria Brasileira 25(11): 1547-1554. In Portuguese.

Cubas, P. and C. Pardo. 1992. Pollen wall stratification trends in *Ulex* (Genisteae, Papilionoideae, Leguminosae) in the Iberian Peninsula. Grana 31(3): 177-185. Three types of stratification found.

Dasuki, U.A. and A.M. Schot. 1991. Taxonomy of *Fordia* Hemsley (Papilionaceae: Millettieae). Blumea 36: 191-204. 18 species recognized including 1 new species and 5 new combinations.

DELGADO, BRUNEAU, and DOYLE. 1993. Chloroplast DNA phylogenetic studies in New World Phaseolinae (Leguminosae: Papilionoideae: Phaseoleae). Syst. Bot. 18(1): 6-17.

Detienne, P. 1991. Key to foliar identification of legumes from forests of Cameroon, Congo, Gabon, and Central African Republic. Bois et Forêts des Tropiques 230: 39-52. 225 species in 75 genera treated. In French.

Dobignard, A., F. Jacquemoud, and D. Jordan. 1992. Materials for the floristic knowledge of the Western Sahara and of the southern Anti-Atlas. II. Leguminosae to Compositae. Candollea 47(2): 397-481.

Domagalski, J.M., K.P. Kollipara, A.H. Bates, D.L. Brandon, M. Friedman, and HYMOWITZ. 1992. Nulls for the major soybean Bowman-Birk protease inhibitor in the genus *Glycine*. Crop Sci. 32(6): 1502-1505. 13 species surveyed.

DORADO, J. Bonilla, and A. Burgos. 1992. A new species of *Brongniartia* (Fabaceae: Faboideae) from Guerrero, Mexico. Novon 2(4): 330-332.

DREWES. 1991. Typology of the synflorescence, development of extra floral nectaries, and growth forms in *Macropodium* (Benth.) Urban (Leguminosae-Phaseoleae). Beitr. Biol. Pflanzen 66: 407-420.

DREWES and PALACIOS. 1991. Notulae ad Floram paraquaiensem. 28-33. Nuevo combinación en el género *Macropodium* Urban (Leguminosae-Phaseoleae), *M. chacoense* (Hassler) S. Drewes & R. Palacios. Notas en Phaseolinae I. Candollea 46: 510-511.

DUNCAN and R.B. McCartney. 1992. About *Lupinus cumicola* (Fabaceae). Sida Contr. Bot. 15(2): 346-347.

Ebinger, J.E. and SEIGLER. 1992. Ant-acacia hybrids of Mexico and Central America. Southwestern Naturalist 37(4): 408-414.

El Ghazali, G.E.B. 1993. Pollen-stamen polymorphism in the Sudanese cassias with special reference to *Cassia italica* (Leguminosae). Grana 32(1): 13-21.

Engel, T. 1991. The evolution of rachis thorns in *Astragalus* and *Astracantha* (Leguminosae) and the systematic applicability of thorn anatomy. Pp. 17-27 in T. Engel, W. Frey, and H. Kuerschner, eds., Flora et Vegetatio Mundi, Band IX.

Farr, D.F. 1992. Species of *Septoria* on the Fabaceae subfamily Faboideae tribe Genisteae. Sydowia 44(1): 13-31. 7 taxa accepted.

FLORES GUIDO. 1990. The flowering periods of Leguminosae in the Yucatan Peninsula in relation to honey flows. J. Apicultural Res. 29(2): 82-88. Flowering data on 176 species of legumes studied.



- FORTUNATO. 1992. *Eriosema boelckei*: nueva especie del género *Eriosema* (Phasoleae, Faboideae, Fabaceae). *Parodiana* 7(1-2): 31-34.
- Germishuizen, G. 1991. *Caesalpinia bracteata*, a new species from the Onseepkans area of the northern Cape Province. *Bothalia* 21(2): 152-154.
- Germishuizen, G. 1992. Fabaceae. *Lessertia sneeuwbergensis* sp. nov. from the Middelburg District of the central Cape Province. *Bothalia* 22(2): 189-190.
- Ghazanfar, S.A. 1990. Staminal dimorphism in *Cassia* s.l. (Caesalpinaceae) in West Africa. *Mitt. Inst. Allgem. Bot. Hamburg* 23b: 731-738.
- Glad, J.B. and R.R. Halse. 1993. Invasion of *Amorpha fruticosa* L. (Leguminosae) along the Columbia and Snake Rivers in Oregon and Washington. *Madroño* 40(1): 62-63.
- Goertzen, L.R. and SMALL. 1993. The defensive role of trichomes in black medick, *Medicago lupulina* (Fabaceae). *Plant Syst. Evol.* 184(1-2): 101-111.
- HANELT and R.K. Beridze. 1991. The flora of cultivated plants of Georgia and its genetic resources. Pp. 113-120 in T. Engel, W. Frey, and H. Kuerschner, eds., *Flora et Vegetatio Mundi*, Band IX.
- HERENDEEN. 1992. *Podocarpium podocarpum* comb. nov., the correct name for *Podogonium knorrii* Heer, *nom. illeg.* (Fossil Fabaceae). *Taxon* 41(4): 731-736.
- Hopkins, H.F. 1992. Two new subspecies of *Parkia* (Leguminosae-Mimosoideae) in Malesia. *Blumea* 37(1): 77-79.
- Horvat, F., FERGUSON, and STAINIER. 1992. Relation entre l'ultrastructure pollinique et la taxonomie de quatre espèces du genre *Mucuna* (Leguminosae-Papilionoideae). *Rev. Palaeobot. Palynol.* 72(3-4): 285-298. *Mucuna sloanei*, *M. biplicata*, *M. sempervirens*, and *M. rostrata* were studied.
- Huang, T.C., C.F. Hsieh, and HUANG. 1991. A catalogue of the TAI Herbarium, National Taiwan University. Part 1. Leguminosae. *Taiwania* 36(4): 318-395. Computer-outputted locality data for all legume collections arranged alphabetical by taxon.
- HUANG and T.C. Huang. 1991. Notes on the flora of Taiwan (12). The genus *Caesalpinia* L. (Leguminosae-Caesalpinioideae). *Taiwania* 36(3): 272-276.
- ICARDA. 1992. International Center for Agricultural Research in the Dry Areas. Dryland Pasture & Forage Legume Network News. An informal vehicle for communication. (P.O. Box 5466, Aleppo, Syria) 6: 1-20. See *Bean Bag* 36: 6. 1992.
- JAASKA and Vilve Jaaska. 1990. Isoenzyme variation in Asian beans. *Bot. Acta* 103(3): 281-290.
- Jaaska, Vilve and JAASKA. 1989. Isoenzyme differentiation between Asian beans *Vigna radiata* and *V. mungo*. *Biochem. Physiol. Pflanzen* 185(1): 41-53.
- JURZYSTA, S. Burda, W. Oleszek, M. Ploszynski, SMALL, and C. Nozzolillo. 1992. Chemical composition of seed saponins as a guide to the classification of *Medicago* species. *Canad. J. Bot.* 70: 1384-1387.
- Kartesz, J.T. and K.N. Gandhi. 1992. *Pediomelum ockendonii* sp. nov.: Correct name for *Pediomelum palmeri* Grimes (Fabaceae). *Sida Contr. Bot.* 15(1): 137-138.

- Kartesz, J.T. and K.N. Gandhi. 1991. Nomenclatural notes for the North American flora. VII. *Phytologia* 71(2): 87-100. New combinations in *Chamaecrista* and *Lotus*.
- KLITGAARD and FERGUSON. 1992. Pollen morphology of *Browneopsis* (Leguminosae: Caesalpinioideae), and its evolutionary significance. *Grana* 31(4): 285-290.
- Kostermans, A.J.G.H. 1992. Reinstatement of *Pterocarpus echinata* Pers. (Leguminosae: Papilionaceae). *Reinwardtia* 11(1): 33.
- Kotlyarova, E.G., Y.V. Denisenko, O.A. Ogarkova, and V.A. Tarasov. 1992. Homology between chloroplast and nuclear DNA in different species of Fabaceae and *Arabidopsis thaliana*. *Genetika* 28(9): 5-10.
- KRAMINA. 1992. Study of geographical variability of some morphological characters of *Lotus corniculatus* L., s.l. (Leguminosae) in the European Russia and adjacent countries. *Bull. Soc. Nat. Moscou* 97(6). In Russian.
- KRAMINA and V.N. Tikhomirov. 1991. Within population variability of some morphological characters of *Lotus corniculatus* L., s.l. (Leguminosae) in the European Part of the USSR. *Bull. Soc. Nat. Moscou* 96(6). In Russian.
- KRAUS. 1992. Untersuchungen zur Infloreszenz-Morphologie der Leguminosae-Mimosoideae. *Tropische und subtropische Pflanzenwelt* 82: 1-64.
- Lampinen, R. 1992. *Anthyllis vulneraria* complex in Finland. *Memo Soc. Fauna Flora Fenn.* 68(4): 105-117. 5 subspecies distinguished, 2 new varietal combinations.
- LARSEN, K. 1991. Notes on the genus *Bauhinia* (Leguminosae-Caesalpinioideae) in Southeast Asia. *Nord. J. Bot.* 11: 629-634.
- LAVIN. 1993. Biogeography and systematics of *Poitea* (Leguminosae). *Syst. Bot. Monogr.* 37: 1-87.
- LAVIN and LUCKOW. 1993. Origins and relationships of tropical North America in the context of the boreotropics hypothesis. *Amer. J. Bot.* 80(1): 1-14. Data from two legume groups, the *Dichrostachys* group of Mimosoideae and Robinieae and allies of Faboideae, were used to test the hypothesis.
- Lu, J. and B. Pickersgill. 1993. Isozyme variation and species relationships in peanut and its wild relatives (*Arachis* L. - Leguminosae). *Theoretical and Applied Genetics* 85(5): 550-560.
- Lucchese, F. 1991. Italian floristic reports. 593. *Trifolium suffocatum* L. (Leguminosae), new species for Molise. *Inf. Bot. Ital.* 22(1-2): 60-61. In Italian.
- Lucchese, F. 1991. Italian floristic reports. 592. *Medicago disciformis* DC. (Leguminosae) new species for Molise. *Inf. Bot. Ital.* 22(1-2): 60. In Italian.
- LUCKOW. 1993. Monograph of *Desmanthus* (Leguminosae-Mimosoideae). *Syst. Bot. Monogr.* 38: 1-166.
- MAGULAEV. 1992. K tzitogeografii vidov *Medicago* L. vo flore Severnogo Kavkaza [On cytogeography of *Medicago* species in the flora of the North Caucasus]. *Tretie soveshchanie po kariologii rastenij*. St.-Petersburg 33-34.
- MASLIN. 1992. *Acacia* miscellany. 6. Review of *Acacia victoriae* and related species (Leguminosae: Mimosoideae: section *Phyllodineae*). *Nuytsia* 8(2): 285-309. 10 species in group.



- Meinke, R.J. and T.N. Kaye. 1992. Taxonomic assessment of *Astragalus tegetarioides* (Fabaceae) and a new related species from northern California. *Madroño* 39(3): 193-204.
- Nepstad, D.C. and S. Schwartzman, eds.. 1992. Non-timber products from tropical forests. Evaluation of a conservation and development strategy. *Advances in Economic Botany* 9: 1-176. Fourteen chapters based on papers and discussions of an international symposium convened in Washington, D.C. Included are discussions of the biological, cultural, political, and economic contexts of non-timber forest product extraction and trade. Case studies from Amazonia, Africa, and Southeast Asia are presented.
- Nesom, G.L. 1992. A newly recognized species of *Dalea* (Fabaceae) from Nuevo Leon, Mexico. *Phytologia* 73(5): 425-428. *Dalea eriophylla* var. *uniflora* elevated to species rank.
- NOVIKOVA and V.I. Safronova. 1992. Transconjugants of *Agrobacterium radiobacter* harboring Sym genes of *Rhizobium galegae* can form an effective symbiosis with *Medicago sativa*. *FEMS Microbiol. Letts.* 93: 261-268.
- Ohashi, H. 1992. A new species of *Desmodium* (Leguminosae) from Laos. *J. Jap. Bot.* 67(6): 320-323.
- Ono, Y., P. Buritica, and HENNEN. 1992. Delimitation of *Phakopsora*, *Physopella*, and *Cerotelium* and their species on Leguminosae. *Mycol. Res.* 96(10): 825-850.
- Pauwels, L., P. Mulkay, L. Ngoy, and C. Delaude. 1992. Fabaceae with amylolytic properties used in the brewing of traditional Munkoyo beer in the Zambesian Region. *Belg. J. Bot.* 125(1): 41-60. *Eminia holubii*, *E. harmsiana*, *E. antennulifera*, *Rhynchosia insignis*, and *Vigna nuda* are used.
- Peralta, I., J.G. Rodriguez, and M.T.K. Arroyo. 1992. Breeding system and aspects of pollination in *Acacia caven* (Mol.) Mol. (Leguminosae-Mimosoideae) in the Mediterranean-type climate zone of Central Chile. *Bot. Jahrb. Syst.* 114(3): 297-314.
- Phillipson, P.B. 1992. A new species of *Indigofera* L. (Fabaceae) from the eastern Cape. *S. African J. Bot.* 58(3): 129-132.
- Playford, J., R. Appels, and B.R. Baum. 1992. The 5S DNA units of *Acacia* species (Mimosaceae). *Plant Syst. Evol.* 183(3-4): 235-247.
- Poppendieck, H.H. 1992. New taxa of *Lonchocarpus* (Fabaceae: Millettieae) from the Venezuelan Guayana. *Novon* 2(1): 53-57.
- POTOKINA and E.E. Eggi. 1991. Electrophoresis of seed storage proteins in the solution of the problems on *Vicia aggr. sativa* taxonomy. *Trudy Prikl. Bot.* 139: 112-123. In Russian.
- POTTER. 1992. Economic botany of *Sphenostylis* (Leguminosae). *Econ. Bot.* 46(3): 262-275.
- POTTER and DOYLE. 1992. Origins of the African yam bean *Sphenostylis stenocarpa* (Leguminosae): Evidence from morphology, isozymes, chloroplast DNA, and linguistics. *Econ. Bot.* 46(3): 276-292.
- PROVOROV. 1992. The interrelationship between the taxonomy of legumes and the specificity of their interaction with root-nodule bacteria. *Bot. Zhurn.* 77(8): 21-32. In Russian.
- PROVOROV. 1991. Origin and evolution of legume-rhizobial symbiosis. *Izv. Akad. Nauk SSSR, Ser. Biol.* 1: 77-87. In Russian.
- PRZYBYLSKA, R. Manteuffel, and BISBY. 1992. Immunological investigations on distribution of the S2 albumin in the Leguminosae-Papilionoideae. *Biochem. Syst. Ecol.* 20(7): 639-655. S2 albumin

characteristic of the tribe Vicieae.

Randell, B. R. 1992. Mulga. A revision of the major species. J. Adelaide Bot. Gard. 14(2): 105-132.

Rao, J.V.S. and S.R.S. Rao. 1992. LM and SEM studies in seed morphology in some *Tephrosia* Pers. (Leguminosae). Feddes Repert. 103(5-6): 339-343.

Rao, J.V.S. and S.R.S. Rao. 1993. Non-protein amino acids in the taxonomy of *Tephrosia* Pers. (Fabaceae). Feddes Repert. 104(1-2): 53-58.

Rao, S.R.S. and J.V.S. Rao. 1992. Structure, distribution, and taxonomic importance of trichomes in *Tephrosia* (Fabaceae). Sida Contr. Bot. 15(2): 346-347.

RICO-ARCE. 1992. Notes on *Albizia niopoides* (Spruce ex Benth.) Burkart (Leguminosae: Mimosoideae). Kew Bull. 47(4): 699-702.

RICO-ARCE. 1992. New chromosome counts in neotropical *Albizia*, *Havardia*, and *Pithecellobium*, and a new combination for *Albizia* (Leguminosae-Mimosoideae-Ingeae). Bot. J. Linn. Soc. 108(3): 269-274.

RIDDER-NUMAN. 1992. *Spatholobus* (Leguminosae-Papilionoideae): A new species and some taxonomic notes. Blumea 37: 63-71.

Russo, R.O. 1990. *Erythrina* (Leguminosae: Papilionoideae): A versatile genus for agroforestry systems in the tropics. J. Sustainable Agric. 1(2): 89-109.

Sammour, R.H. 1991. Systematic position of the genus *Cicer* L. (Fabaceae) from data on DNA-DNA hybridization. Folia Geobot. Phytotax. 26(1): 95-100.

Sanjappa, M. 1992. Notes on the identity and nomenclature of some species of *Indigofera* L. (Leguminosae-Papilionoideae) of China. Taiwania 37(1): 1-4.

Schot, A.M. 1991. Phylogenetic relations and historical biogeography of *Fordia* and *Imbralyx* (Papilionaceae: Millettieae). Blumea 36: 205-234. Supports merger of *Fordia* and *Imbralyx*.

SCHRIRE. 1992. New combinations and resurrected names in *Microcharis* and *Indigastrum* (Fabaceae-Papilionoideae). Bothalia 22(2): 165-170. *Microcharis* and *Indigastrum* segregated from *Indigofera* based on cladistic studies.

Schultes, R.E. and R.F. Raffauf. 1992. A rare report of an intoxicating snuff from the Amazon. Kew Bull. 47(4): 743-744. From *Dimorphandra parviflora*.

Schutte, A.L. 1992. Fabaceae. *Cyclopia squamosa*, sp. nov. (Podalyrieae) from the southwestern Cape Province. Bothalia 22(2): 190-192.

Schutte, A.L. and VAN WYK. 1993. The reinstatement of the genus *Xiphotheca* (Fabaceae). Taxon 42: 43-49.

Schutte, A.L. and VAN WYK. 1992. Fabaceae. A new species of *Coelidium* (Liparieae). Bothalia 22(2): 188-189.

SEFEROVA. 1992. The types of cultivated *Cicer arietinum* seeds and their geographical distribution. Research Bull. of the Vavilov Institute 223: 43-46.



- SEFEROVA. 1991. Geographical variability of leaflet shape in *Lathyrus sylvestris* (Fabaceae). Research Bull. of the Vavilov Institute 213: 78-80.
- SEFEROVA. 1991. A critical analysis of the system of intraspecies taxon of cultivated *Cicer arietinum* (Fabaceae). Research Bull. of the Vavilov Institute 207: 54-55.
- SEFEROVA and STANKEVICZ. 1991. Regarding the volume of the species *Lathyrus rotundifolius* (Fabaceae) and its intraspecific variability. Trudy Prikl. Bot. 139: 52-58.
- Seneviratne, G.I. and J.B. Harborne. 1992. Constitutive flavonoids and induced isoflavonoids as taxonomic markers in the genus *Vigna*. Biochem. Syst. Ecol. 20(5): 459-467. 8 species and 3 subspecies surveyed including *Vigna unguiculata*, *V. radiata*, *V. mungo*, *V. angularis*, *V. umbellata*, *V. trilobata*.
- SHARIPOVA. 1992. Novyi vid roda *Cicer* L. iz Tadzhikistana [The new *Cicer* species from Tadzhikistan]. Izv. Akad. Nauk Resp. Tadzhik., Otd. Biol. Nauk 1: 125.
- SMALL and M. Fawzy. 1992. Morphogeographic variation in the *Medicago monantha* complex. Canad. J. Bot. 70: 1292-1301.
- SMALL, S.I. Warwick, and B. Brookes. 1992. Isozyme variation and alleged progenitor-derivative relationships in the *Medicago murex* complex (Fabaceae). Plant Syst. Evol. 181: 33-43.
- SOUSA. 1992. *Willardia*, una nueva sección del género *Lonchocarpus* (Leguminosae). Anales Inst. Biol. Univ. Nac. Autón. México, Ser. Bot. 63(2): 147-154.
- SOUSA. 1993. The genus *Inga* (Leguminosae-Mimosoideae) from southern Mexico and Central America. Preliminary study for Flora Mesoamericana. Ann. Missouri Bot. Gard. 80(1): 223-269. 13 new species, 7 names lectotypified, 1 new combination.
- SOUSA and DELGADO SALINAS. 1993. Mexican Leguminosae: Phytogeography, endemism, and origins. Pp. 459-511 in: T.P. Ramamoorthy et al., eds., Biological Diversity of Mexico: Origins and Distribution. Oxford University Press, Oxford.
- SOUSA and LAVIN. 1992. Nuevas Robinieae (Leguminosae) de Chiapas, México. Anales Inst. Biol. Univ. Nac. Autón. México, Ser. Bot. 63(2): 139-145. 1 new *Coursetia*, 1 new *Hybosema*. In Spanish.
- SOUSA and RUDD. 1993. Revision del género *Styphnolobium* (Leguminosae: Papilionoideae: Sophoreae). Ann. Missouri Bot. Gard. 80: 270-283.
- Tarrega, R., L. Calvo, and L. Trabaud. 1992. Effect of high temperatures on seed germination of two woody Leguminosae. Vegetatio 102(2): 139-147. *Cytisus scoparius* and *Genista florida*.
- Tateishi, Y. and H. Ohashi. 1992. Taxonomic studies on *Glycine* of Taiwan. J. Jap. Bot. 67(3): 127-147. 4 species present; 1 new subspecies proposed.
- TAVARES. 1991. New species of genus *Cynometra* L. (Caesalpiniaceae) for the state of Para, Brazil. Acta Amazonica 20: 405-407. In Portuguese.
- Taylor, J.M. 1992. A revision of *Chorizema* (Leguminosae: Mirbelieae). Austral. Syst. Bot. 5(3): 249-335.
- TINDALE and P.G. Kodala. 1992. New species of *Acacia* (Fabaceae-Mimosoideae) from tropical Australia. Telopea 5(1): 53-66.

- TINDALE and P.G. Kodela. 1992. *Acacia pedleyi* (Fabaceae-Mimosoideae): A new species from central-eastern Queensland. *Austrobaileya* 3(4): 745-748.
- TINDALE and P.G. Kodela. 1991. *Acacia tessellata*, *A. cangaiensis*, and *A. dangarensis* (Fabaceae, Mimosoideae), three new species from northern New South Wales, Australia. *Austral. Syst. Bot.* 4(3): 579-589.
- TINDALE, P.G. Kodela, and S.J. Davies. 1992. *Acacia bulgaensis* sp. nov. and *Acacia matthewii* sp. nov. (*Acacia* section *Juliflorae*, Fabaceae-Mimosoideae) allied to *Acacia cheelii* from eastern New South Wales, Australia. *Austral. Syst. Bot.* 5(5): 645-655.
- TINDALE, P.G. Kodela, and C. Herscovitch. 1992. *Acacia meiantha* (Fabaceae-Mimosoideae): A new species from the Central Tablelands of New South Wales. *Austral. Syst. Bot.* 5(6): 761-765.
- Torck, M. and M. Pinkas. 1992. The flavonoids of the genus *Vicia*. *Biochem. Syst. Ecol.* 20(5): 453-457. 24 species examined, with 26 compounds identified. In French.
- TUCKER. 1993. Floral ontogeny in Sophoreae (Leguminosae-Papilionoideae). I. *Myroxylon* (*Myroxylon* group) and *Castanospermum* (*Angylocalyx* group). *Amer. J. Bot.* 80(1): 65-75.
- TURNER. 1992. Taxonomic overview of the genus *Cologania* (Fabaceae-Phaseoleae). *Phytologia* 73(4): 281-301. 10 species recognized, 1 new; mostly Mexican.
- Udvardi, M.K. and M.L. Kahn. 1993. Evolution of the (Brady)*Rhizobium*-legume symbiosis: Why do bacteroids fix nitrogen? *Symbiosis* 14(1-3): 87-101.
- Vaillancourt, R.E. and N.F. Weeden. 1992. Chloroplast DNA polymorphism suggests Nigerian center of domestication for the cowpea *Vigna unguiculata* (Leguminosae). *Amer. J. Bot.* 79(10): 1194-1199.
- Veen, G., R. Grienwald, L. Witte, V. Wray, and F.C. Czygan. 1990. Virgilidone: A new tricyclic quinolizidine alkaloid in *Virgilia* and its chemotaxonomic significance. *Planta Medica* 56(6): 523.
- Velari, T.C. and L.F. Chiapella. 1991. Systematic relationships within the *Genista sylvestris* group (Genisteae, Fabaceae) on the basis of karyological and biometrical data. *Flora Mediterranea* 1: 21-29.
- Velázquez, D. 1992. Recognition of *Brownea coccinea* Jacq. subspecies *capitella* (Leguminosae: Caesalpinoideae). *Novon* 2(2): 173-175.
- Vincent, M.A. 1991. *Trifolium reflexum* L. (buffalo clover: Leguminosae) in Ohio, its history and present status. *Michigan Botanist* 30(2): 65-68.
- Vioque, J. and J. Pastor. 1991. Contributions to the caryological knowledge of the tribe Loteae (Fabaceae). *Lazaroa* 12: 9-19. 21 taxa from *Lotus*, *Tetragonolobus*, and *Anthyllis*. In Spanish.
- Walther, A. 1989. Development of the native legume *Glycyrrhiza lepidota* as a potential soil reclamation and forage crop: Final report. Saskatchewan. Agriculture Development Fund, Regina, Canada. 43 p.
- Webb, D.H., J.M. Baskin, and C.C. Baskin. 1992. Distribution and status of *Astragalus tennesseensis* (Fabaceae) in Alabama. *Sida Contr. Bot.* 15(1): 97-103.
- WINDLER, L. Adler, and S. Skinner. 1992. *Crotalaria incana* var. *grandiflora* (Leguminosae): A new variety from South America. *Phytologia* 73(2): 155-158.



## New Readers and Changes for the November 1992 Directory

The complete *Bean Bag Directory* now appears on a three-year schedule. The last full *Directory* appeared in November 1992, and the next complete *Directory* will be published in November 1995. Use this supplement in conjunction with the November 1992 *Directory*.

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